RAW SEQUENCE LISTING   DATE: 07/05/2002 P6
PATENT APPLICATION: US/10/024,818   TIME: 14:41:20

Input Set : A:\EP.txt
Output Set: N:\CRF3\07052002\J024818.raw

```
 3 <110> APPLICANT: Froehler, Brian
 4        Wagner, Rick
 5        Mateucci, Mark
 6        Jones, Robert J.
 7        Gutierrez, Arnold J.
 8        Pudlo, Jeff
10 <120> TITLE OF INVENTION: Enhanced Triple-Helix And Double-Helix Formation With
Oligomers
11        Containing Modified Pyrimidines
13 <130> FILE REFERENCE: GLIS0143
15 <140> CURRENT APPLICATION NUMBER: 10/024,818
16 <141> CURRENT FILING DATE: 2001-12-18
18 <150> PRIOR APPLICATION NUMBER: 08/599,738
19 <151> PRIOR FILING DATE: 1996-02-12
21 <160> NUMBER OF SEQ ID NOS: 54
23 <170> SOFTWARE: PatentIn version 3.1
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 15
27 <212> TYPE: DNA
28 <213> ORGANISM: Artificial Sequence
30 <220> FEATURE:
31 <223> OTHER INFORMATION: Synthetic construct
33 <220> FEATURE:
34 <221> NAME/KEY: misc_feature
35 <222> LOCATION: (2)..(2)
36 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
39 <220> FEATURE:
40 <221> NAME/KEY: misc_feature
41 <222> LOCATION: (4)..(4)
42 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
45 <220> FEATURE:
46 <221> NAME/KEY: misc_feature
47 <222> LOCATION: (6)..(6)
48 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
51 <220> FEATURE:
52 <221> NAME/KEY: misc_feature
53 <222> LOCATION: (8)..(8)
54 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
57 <220> FEATURE:
58 <221> NAME/KEY: misc_feature
59 <222> LOCATION: (10)..(10)
60 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
63 <400> SEQUENCE: 1
W--> 64 tntntntntn ttttt                                          15
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RAW SEQUENCE LISTING   DATE: 07/05/2002
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Input Set : A:\EP.txt
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 68 <211> LENGTH: 15
 69 <212> TYPE: DNA
 70 <213> ORGANISM: Artificial Sequence
 72 <220> FEATURE:
 73 <223> OTHER INFORMATION: Synthetic construct
 75 <220> FEATURE:
 76 <221> NAME/KEY: misc_feature
 77 <222> LOCATION: (2)..(2)
 78 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
 81 <220> FEATURE:
 82 <221> NAME/KEY: misc_feature
 83 <222> LOCATION: (4)..(4)
 84 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
 87 <220> FEATURE:
 88 <221> NAME/KEY: misc_feature
 89 <222> LOCATION: (6)..(6)
 90 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
 93 <220> FEATURE:
 94 <221> NAME/KEY: misc_feature
 95 <222> LOCATION: (8)..(8)
 96 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
 99 <220> FEATURE:
100 <221> NAME/KEY: misc_feature
101 <222> LOCATION: (10)..(10)
102 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
105 <220> FEATURE:
106 <221> NAME/KEY: misc_feature
107 <222> LOCATION: (11)..(15)
108 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
111 <400> SEQUENCE: 2
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W--> **112 tntntntntn nnnnn   15**
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116 <211> LENGTH: 15
117 <212> TYPE: DNA
118 <213> ORGANISM: Artificial Sequence
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121 <223> OTHER INFORMATION: Synthetic construct
123 <220> FEATURE:
124 <221> NAME/KEY: misc_feature
125 <222> LOCATION: (2)..(2)
126 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
129 <220> FEATURE:
130 <221> NAME/KEY: misc_feature
131 <222> LOCATION: (4)..(4)
132 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
135 <220> FEATURE:
136 <221> NAME/KEY: misc_feature
137 <222> LOCATION: (6)..(6)
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RAW SEQUENCE LISTING   DATE: 07/05/2002
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          Input Set : A:\EP.txt
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138 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
141 <220> FEATURE:
142 <221> NAME/KEY: misc_feature
143 <222> LOCATION: (7)..(7)
144 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
147 <220> FEATURE:
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149 <222> LOCATION: (8)..(8)
150 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
153 <220> FEATURE:
154 <221> NAME/KEY: misc_feature
155 <222> LOCATION: (9)..(9)
156 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
159 <220> FEATURE:
160 <221> NAME/KEY: misc_feature
161 <222> LOCATION: (10)..(10)
162 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
165 <220> FEATURE:
166 <221> NAME/KEY: misc_feature
167 <222> LOCATION: (11)..(11)
168 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
171 <220> FEATURE:
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173 <222> LOCATION: (13)..(13)
174 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
177 <220> FEATURE:
178 <221> NAME/KEY: misc_feature
179 <222> LOCATION: (15)..(15)
180 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
183 <400> SEQUENCE: 3
W--> 184 tntntnnnnn ntntn   15
187 <210> SEQ ID NO: 4
188 <211> LENGTH: 15
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Synthetic construct
195 <400> SEQUENCE: 4
196 agagagagag aaaaa   15
199 <210> SEQ ID NO: 5
200 <211> LENGTH: 15
201 <212> TYPE: DNA
202 <213> ORGANISM: Artificial Sequence
204 <220> FEATURE:
205 <223> OTHER INFORMATION: Synthetic construct
207 <220> FEATURE:
208 <221> NAME/KEY: misc_feature
209 <222> LOCATION: (2)..(2)
210 <223> OTHER INFORMATION: This position is C*= 5-(1-propynyl)-2'-deoxycytidine

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213 <220> FEATURE:
214 <221> NAME/KEY: misc_feature
215 <222> LOCATION: (4)..(4)
216 <223> OTHER INFORMATION: This position is C*= 5-(1-propynyl)-2'-deoxycytidine
219 <220> FEATURE:
220 <221> NAME/KEY: misc_feature
221 <222> LOCATION: (6)..(6)
222 <223> OTHER INFORMATION: This position is C*= 5-(1-propynyl)-2'-deoxycytidine
225 <220> FEATURE:
226 <221> NAME/KEY: misc_feature
227 <222> LOCATION: (8)..(8)
228 <223> OTHER INFORMATION: This position is C*= 5-(1-propynyl)-2'-deoxycytidine
231 <220> FEATURE:
232 <221> NAME/KEY: misc_feature
233 <222> LOCATION: (10)..(10)
234 <223> OTHER INFORMATION: This position is C*= 5-(1-propynyl)-2'-deoxycytidine
237 <400> SEQUENCE: 5
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W--> **238 tntntntntn ttttt   15**

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242 <211> LENGTH: 15
243 <212> TYPE: DNA
244 <213> ORGANISM: Artificial Sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: Synthetic construct
249 <400> SEQUENCE: 6
250 aaaaagagag agaga                                                    15
253 <210> SEQ ID NO: 7
254 <211> LENGTH: 15
255 <212> TYPE: DNA
256 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:
259 <223> OTHER INFORMATION: Synthetic construct
261 <220> FEATURE:
262 <221> NAME/KEY: misc_feature
263 <222> LOCATION: (1)..(1)
264 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
267 <220> FEATURE:
268 <221> NAME/KEY: misc_feature
269 <222> LOCATION: (2)..(2)
270 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
273 <220> FEATURE:
274 <221> NAME/KEY: misc_feature
275 <222> LOCATION: (3)..(3)
276 <223> OTHER INFORMATION: This positionis U*= 5-(1-propynyl)-2'-deoxyuridine
279 <220> FEATURE:
280 <221> NAME/KEY: misc_feature
281 <222> LOCATION: (4)..(4)
282 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
285 <220> FEATURE:
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                    RAW SEQUENCE LISTING              DATE: 07/05/2002
                    PATENT APPLICATION:  US/10/024,818   TIME: 14:41:20

                    Input Set : A:\EP.txt
                    Output Set: N:\CRF3\07052002\J024818.raw
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      286 <221> NAME/KEY: misc_feature
      287 <222> LOCATION: (5)..(5)
      288 <223> OTHER INFORMATION: This position is U*= 5-(1-propynl)-2'-deoxyuridine
      291 <220> FEATURE:
      292 <221> NAME/KEY: misc_feature
      293 <222> LOCATION: (6)..(6)
      294 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
      297 <220> FEATURE:
      298 <221> NAME/KEY: misc_feature
      299 <222> LOCATION: (7)..(7)
      300 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
      303 <220> FEATURE:
      304 <221> NAME/KEY: misc_feature
      305 <222> LOCATION: (8)..(8)
      306 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
      309 <220> FEATURE:
      310 <221> NAME/KEY: misc_feature
      311 <222> LOCATION: (9)..(9)
      312 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
      315 <220> FEATURE:
      316 <221> NAME/KEY: misc_feature
      317 <222> LOCATION: (10)..(10)
      318 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
      321 <220> FEATURE:
      322 <221> NAME/KEY: misc_feature
      323 <222> LOCATION: (11)..(15)
      324 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
      327 <400> SEQUENCE: 7
W--> 328 nnnnnnnnnn nnnnn                                              15
      331 <210> SEQ ID NO: 8
      332 <211> LENGTH: 15
      333 <212> TYPE: DNA
      334 <213> ORGANISM: Artificial Sequence
      336 <220> FEATURE:
      337 <223> OTHER INFORMATION: Synthetic construct
      339 <220> FEATURE:
      340 <221> NAME/KEY: misc_feature
      341 <222> LOCATION: (2)..(2)
      342 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
      345 <220> FEATURE:
      346 <221> NAME/KEY: misc_feature
      347 <222> LOCATION: (4)..(4)
      348 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
      351 <220> FEATURE:
      352 <221> NAME/KEY: misc_feature
      353 <222> LOCATION: (6)..(6)
      354 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
      357 <220> FEATURE:
      358 <221> NAME/KEY: misc_feature
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 07/05/2002
PATENT APPLICATION: US/10/024,818   TIME: 14:41:21

Input Set : A:\EP.txt
Output Set: N:\CRF3\07052002\J024818.raw

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:1;  N Pos.  2,4,6,8,10
Seq#:2;  N Pos.  2,4,6,8,10,11,12,13,14,15
Seq#:3;  N Pos.  2,4,6,7,8,9,10,11,13,15
Seq#:5;  N Pos.  2,4,6,8,10
Seq#:7;  N Pos.  1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
Seq#:8;  N Pos.  2,4,6,7,8,9,11,13,15
Seq#:9;  N Pos.  2,4,6,8,10,11,12,13,14,15
Seq#:13; N Pos.  1,3,5,7,9,10,11,12,13,14,15
Seq#:14; N Pos.  6,9,17,20
Seq#:15; N Pos.  2,3,4,5,6,7,8,9,11,12,13,14,15,16,17,18,19,20
Seq#:16; N Pos.  2,3,4,5,6,7,8,9,11,12,13,14,15,16,17,18,19,20
Seq#:17; N Pos.  2,3,4,5,6,7,8,9,11,12,13,14,15,16,17,18,19,20
Seq#:18; N Pos.  1,2,3,4,6,7,8,9,10,11,12,13,14,15
Seq#:19; N Pos.  1,2,3,4,6,7,8,9,10,11,12,13
Seq#:20; N Pos.  1,2,3,4,6,7,8,9,10,11
Seq#:21; N Pos.  1,2,3,4,6,7,9,10,11,12,13,14,15
Seq#:22; N Pos.  1,2,3,4,5,6,7,8,9,10,12,13,14,15
Seq#:23; N Pos.  1,2,4,5,7,8,9,10,11,13,14,16,18,19,20,23
Seq#:24; N Pos.  1,2,3,4,6,7,8,9
Seq#:25; N Pos.  1,2,4,5,7,8,9,10,11,12,13,14,15,16,17,18,19,20
Seq#:28; N Pos.  2,4,6,8,10,11,12,13,14
Seq#:29; N Pos.  2,4,6,8,10
Seq#:30; N Pos.  2,4,6,8,10,11,12,13,14
Seq#:31; N Pos.  2,4,6,8,10,11,12,13,14
Seq#:32; N Pos.  2,4,6,8,10,11,12,13,14,15
Seq#:33; N Pos.  2,4,6,7,8,9,10,11,13,15
Seq#:34; N Pos.  2,4,6,8,10
Seq#:35; N Pos.  2,4,6,8,10,11,12,13,14,15
Seq#:36; N Pos.  2,4,6,7,8,9,10,11,13,15
Seq#:37; N Pos.  1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
Seq#:38; N Pos.  4,8,9,11,12
Seq#:39; N Pos.  1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17
Seq#:43; N Pos.  2,4,6,8,10
Seq#:44; N Pos.  2,4,6,8,10
Seq#:45; N Pos.  2,4,6,8,10
Seq#:46; N Pos.  2,4,6,8,10
Seq#:47; N Pos.  2,4,6,8,10
Seq#:48; N Pos.  2,4,6,8,10
Seq#:50; N Pos.  1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23
Seq#:50; N Pos.  24,25,26,27,28
Seq#:51; N Pos.  1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23
Seq#:54; N Pos.  1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
```

VERIFICATION SUMMARY   DATE: 07/05/2002
PATENT APPLICATION: US/10/024,818   TIME: 14:41:21

Input Set : A:\EP.txt
Output Set: N:\CRF3\07052002\J024818.raw

```
L:64 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:376 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:640 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:760 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:898 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:952 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:1018 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:1084 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:1120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:1186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:1234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:1290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:1363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:1437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:1486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:1564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:1583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:1632 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:1709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:1787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:1817 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:1874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:1976 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:2024 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
L:2072 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:2114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:2156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:2203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
L:2311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
L:2419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:2521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0
```